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PASSWORD:

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```
Welcome to STN International
NEWS
                 Web Page URLs for STN Seminar Schedule - N. America
NEWS 2
                 "Ask CAS" for self-help around the clock
                 New e-mail delivery for search results now available
NEWS 3 Jun 03
NEWS 4 Aug 08
                 PHARMAMarketLetter(PHARMAML) - new on STN
NEWS 5
        Aug 19
                Aquatic Toxicity Information Retrieval (AQUIRE)
                 now available on STN
        Aug 26
NEWS
                 Sequence searching in REGISTRY enhanced
NEWS
     7
        Sep 03
                 JAPIO has been reloaded and enhanced
NEWS
     8
        Sep 16
                 Experimental properties added to the REGISTRY file
     9
NEWS
        Sep 16
                 CA Section Thesaurus available in CAPLUS and CA
NEWS 10
        Oct 01
                 CASREACT Enriched with Reactions from 1907 to 1985
NEWS 11
        Oct 24
                 BEILSTEIN adds new search fields
NEWS 12
        Oct 24
                 Nutraceuticals International (NUTRACEUT) now available on STN
NEWS 13
        Nov 18
                 DKILIT has been renamed APOLLIT
NEWS 14
                More calculated properties added to REGISTRY
        Nov 25
NEWS 15
        Dec 04
                CSA files on STN
NEWS 16
        Dec 17
                 PCTFULL now covers WP/PCT Applications from 1978 to date
NEWS 17
        Dec 17
                 TOXCENTER enhanced with additional content
NEWS 18
        Dec 17
                 Adis Clinical Trials Insight now available on STN
NEWS 19 Jan 29
                 Simultaneous left and right truncation added to COMPENDEX,
                 ENERGY, INSPEC
NEWS 20
        Feb 13
                 CANCERLIT is no longer being updated
NEWS 21
        Feb 24
                METADEX enhancements
NEWS 22
        Feb 24
                PCTGEN now available on STN
NEWS 23
        Feb 24
                 TEMA now available on STN
NEWS 24 Feb 26
                NTIS now allows simultaneous left and right truncation
NEWS 25 Feb 26
                PCTFULL now contains images
NEWS 26
        Mar 04
                SDI PACKAGE for monthly delivery of multifile SDI results
NEWS 27
        Mar 20
                 EVENTLINE will be removed from STN
NEWS 28
        Mar 24
                PATDPAFULL now available on STN
                 Additional information for trade-named substances without
NEWS 29
        Mar 24
                 structures available in REGISTRY
        Apr 11
NEWS 30
                Display formats in DGENE enhanced
NEWS 31
                MEDLINE Reload
        Apr 14
NEWS 32
        Apr 17
                Polymer searching in REGISTRY enhanced
NEWS 33
        Jun 13
                Indexing from 1947 to 1956 added to records in CA/CAPLUS
NEWS 34
                New current-awareness alert (SDI) frequency in
        Apr 21
                 WPIDS/WPINDEX/WPIX
NEWS 35
        Apr 28
                 RDISCLOSURE now available on STN
NEWS 36
                 Pharmacokinetic information and systematic chemical names
        May 05
                 added to PHAR
NEWS 37
        May 15
                MEDLINE file segment of TOXCENTER reloaded
NEWS 38
        May 15
                Supporter information for ENCOMPPAT and ENCOMPLIT updated
                 CHEMREACT will be removed from STN
NEWS 39
        May 16
NEWS 40
        May 19
                Simultaneous left and right truncation added to WSCA
```

NEWS 41	May :	19	RAPRA	enhanced	with	new	search	field,	simultaneous	left	and
			right	truncation					•		

Jun 06 Simultaneous left and right truncation added to CBNB

Jun 06 NEWS 43 PASCAL enhanced with additional data

NEWS 44 Jun 20 2003 edition of the FSTA Thesaurus is now available

NEWS EXPRESS April 4 CURRENT WINDOWS VERSION IS V6.01a, CURRENT MACINTOSH VERSION IS V6.0b(ENG) AND V6.0Jb(JP), AND CURRENT DISCOVER FILE IS DATED 01 APRIL 2003 NEWS HOURS STN Operating Hours Plus Help Desk Availability NEWS INTER General Internet Information

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=> file reg COST IN U.S. DOLLARS

SINCE FILE TOTAL ENTRY SESSION 0.21 0.21

FULL ESTIMATED COST

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20 JUN 2003 HIGHEST RN 534773-28-9 STRUCTURE FILE UPDATES: DICTIONARY FILE UPDATES: 20 JUN 2003 HIGHEST RN 534773-28-9

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2003

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details: http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

Uploading 10018688.1

Page 3

L1 STRUCTURE UPLOADED

=> d l1

L1 HAS NO ANSWERS

L1 STR

Structure attributes must be viewed using STN Express query preparation.

=> s 11

SAMPLE SEARCH INITIATED 13:29:11 FILE 'REGISTRY' SAMPLE SCREEN SEARCH COMPLETED - 1 TO ITERATE

100.0% PROCESSED

1 ITERATIONS

1 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**

BATCH **COMPLETE**

PROJECTED ITERATIONS:

PROJECTED ANSWERS:

1 TO 80 1 TO 80

1 SEA SSS SAM L1

=> s l1 sss full

FULL SEARCH INITIATED 13:29:18 FILE 'REGISTRY' FULL SCREEN SEARCH COMPLETED - 50 TO ITERATE

100.0% PROCESSED 50 ITERATIONS

25 ANSWERS

SEARCH TIME: 00.00.01

L3

25 SEA SSS FUL L1

=> file caplus

COST IN U.S. DOLLARS

SINCE FILE TOTAL

Patel

<6/21/2003>

FULL ESTIMATED COST

ENTRY SESSION 148.15 148.36

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FILE COVERS 1907 - 21 Jun 2003 VOL 138 ISS 26 FILE LAST UPDATED: 20 Jun 2003 (20030620/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s 13

L4

1 L3

=> d l4 fbib hitstr abs total

L4 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2003 ACS

AN 2001:31502 CAPLUS

DN 134:100881

TI Preparation of fused imidazole compounds and remedies for diabetes mellitus

- IN Asano, Osamu; Harada, Hitoshi; Yoshikawa, Seiji; Watanabe, Nobuhisa; Inoue, Takashi; Horizoe, Tatsuo; Yasuda, Nobuyuki; Oohashi, Kaya; Minami, Hiroe; Nagaoka, Junsaku; Murakami, Manabu; Kobayashi, Seiichi; Tanaka, Isao; Kawata, Tsutomu; Shimomura, Naoyuki; Akamatsu, Hirofumi; Ozeki, Naoki; Shimizu, Toshikazu; Hayashi, Kenji; Haga, Toyokazu; Negi, Shigeto; Naito, Toshihiko
- PA Eisai Co., Ltd., Japan
- SO PCT Int. Appl., 130 pp. CODEN: PIXXD2

DT Patent

LA Japanese

FAN.CNT 1

PATENT N	ю.	KIND DAT	E	APPLICATION NO.	DATE
W: RW:	AU, BR,	CA, CN, HU	, IL, JP,	WO 2000-JP4358 KR, MX, NO, NZ, RU FI, FR, GB, GR, IE	, US, ZA

JP 1999-188484 A 19990702 JP 2000-143495 A 20000516

JP 2000-182786 A 20000619

20000630

AU 2000055717 A5 20010122 AU 2000-55717

110 2000033717 113 200101

<6/21/2003>

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JP 1999-188484 A 19990702
                                              JP 2000-143495 A 20000516
                                              JP 2000-182786 A 20000619
                                              WO 2000-JP4358 W 20000630
     EP 1221444
                              20020710
                                              EP 2000-940909
                        Α1
                                                                20000630
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, FI, CY
                                              JP 1999-188484 A 19990702
                                              JP 2000-143495 A 20000516
                                              JP 2000-182786 A 20000619
                                              WO 2000-JP4358 W 20000630
OS
     MARPAT 134:100881
ΙT
     318468-14-3P 318468-15-4P 318468-21-2P
     318468-44-9P 318468-45-0P 318468-46-1P
     318468-48-3P 318468-49-4P 318468-50-7P
     318468-51-8P 318468-52-9P 318468-53-0P
     318468-56-3P 318468-57-4P 318468-58-5P
     318468-59-6P 318468-60-9P 318468-61-0P
     318468-62-1P 318468-63-2P 318468-64-3P
     318468-65-4P 318468-72-3P 318468-96-1P
     318468-97-2P
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
         (prepn. of fused imidazole compds. as antagonists of adenosine A2
        receptors and remedies for diabetes mellitus)
RN
     318468-14-3 CAPLUS
CN
     2(1H)-Pyridinone, 5-[6-amino-8-(3-fluorophenyl)-9H-purin-9-yl]-1-methyl-,
     monohydrochloride (9CI) (CA INDEX NAME)
```

$$\mathbb{R}^{-1}$$

HCl

RN 318468-15-4 CAPLUS CN 2(1H)-Pyridinone, 5-[6-amino-8-(3-fluorophenyl)-9H-purin-9-yl]-1-methyl-(9CI) (CA INDEX NAME)

Page 6

RN 318468-21-2 CAPLUS

CN 2(1H)-Pyridinone, 5-[6-amino-8-(3-fluorophenyl)-2-propoxy-9H-purin-9-yl]-1-methyl-, monohydrochloride (9CI) (CA INDEX NAME)

$$\mathbb{R}^{-}$$

● HCl

RN 318468-44-9 CAPLUS

CN 2(1H)-Pyridinone, 5-[6-amino-8-(3-fluorophenyl)-9H-purin-9-yl]-1,4-dimethyl-, monohydrochloride (9CI) (CA INDEX NAME)

● HCl

RN 318468-45-0 CAPLUS

CN 2(1H)-Pyridinone, 5-[6-amino-8-(3-fluorophenyl)-2-methyl-9H-purin-9-yl]-1-methyl-, monohydrochloride (9CI) (CA INDEX NAME)

● HCl

RN 318468-46-1 CAPLUS

2(1H)-Pyridinone, 5-[6-amino-8-(3-fluorophenyl)-9H-purin-9-yl]-1-ethyl-, monohydrochloride (9CI) (CA INDEX NAME)

CN

HCl

RN 318468-48-3 CAPLUS

CN 2(1H)-Pyridinone, 5-[6-amino-8-(3-fluorophenyl)-9H-purin-9-yl]-1-(2-hydroxyethyl)- (9CI) (CA INDEX NAME)

RN 318468-49-4 CAPLUS

CN 2(1H)-Pyridinone, 5-[6-amino-8-(3-fluorophenyl)-9H-purin-9-yl]-1-(phenylmethyl)-(9CI) (CA INDEX NAME)

Page 9

RN 318468-50-7 CAPLUS

CN · 2(1H)-Pyridinone, 5-[6-amino-8-(3-fluorophenyl)-9H-purin-9-yl]-1-(2-propenyl)- (9CI) (CA INDEX NAME)

$$H_2C$$
 CH CH_2 N

RN 318468-51-8 CAPLUS

CN 1(2H)-Pyridineacetic acid, 5-[6-amino-8-(3-fluorophenyl)-9H-purin-9-yl]-2-oxo-(9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & \\ & & & \\ N & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & &$$

RN 318468-52-9 CAPLUS

CN 1(2H)-Pyridinebutanoic acid, 5-[6-amino-8-(3-fluorophenyl)-9H-purin-9-yl]-2-oxo- (9CI) (CA INDEX NAME)

$$NH_2$$
 NH_2
 NH_2

RN 318468-53-0 CAPLUS

CN 1(2H)-Pyridineacetamide, 5-[6-amino-8-(3-fluorophenyl)-9H-purin-9-yl]-2-oxo-(9CI) (CA INDEX NAME)

CN

Page 10

RN 318468-56-3 CAPLUS

2(1H)-Pyridinone, 5-[6-amino-8-(3-methylphenyl)-9H-purin-9-yl]-1-methyl-, monohydrochloride (9CI) (CA INDEX NAME)

$$\mathbb{R}^{\text{Me}}$$

● HCl

RN 318468-57-4 CAPLUS

2(1H)-Pyridinone, 5-[6-amino-8-(3-nitrophenyl)-9H-purin-9-yl]-1-methyl-, monohydrochloride (9CI) (CA INDEX NAME)

CN

Page 11

● HCl

RN 318468-58-5 CAPLUS

CN 2(1H)-Pyridinone, 5-[6-amino-8-(3-nitrophenyl)-9H-purin-9-yl]-1-methyl-(9CI) (CA INDEX NAME)

RN 318468-59-6 CAPLUS

CN 2(1H)-Pyridinone, 5-[6-amino-8-(3-aminophenyl)-9H-purin-9-yl]-1-methyl-, dihydrochloride (9CI) (CA INDEX NAME)

Page 12

$$\mathbb{R}^{\text{NH}_2}$$

●2 HCl

RN 318468-60-9 CAPLUS

CN 2(1H)-Pyridinone, 5-[6-amino-8-(3-aminophenyl)-9H-purin-9-yl]-1-methyl-(9CI) (CA INDEX NAME)

RN 318468-61-0 CAPLUS

CN Methanesulfonamide, N-[3-[6-amino-9-(1,6-dihydro-1-methyl-6-oxo-3-pyridinyl)-9H-purin-8-yl]phenyl]-, monohydrochloride (9CI) (CA INDEX NAME)

● HCl

RN 318468-62-1 CAPLUS

CN 2(1H)-Pyridinone, 5-[6-amino-8-[3-(trifluoromethyl)phenyl]-9H-purin-9-yl]-1-methyl-, monohydrochloride (9CI) (CA INDEX NAME)

● HCl

RN 318468-63-2 CAPLUS

CN 2(1H)-Pyridinone, 5-[6-amino-8-(3-chlorophenyl)-9H-purin-9-yl]-1-methyl-, monohydrochloride (9CI) (CA INDEX NAME)

● HCl

RN 318468-64-3 CAPLUS

CN 2(1H)-Pyridinone, 5-[6-amino-8-(3-methoxyphenyl)-9H-purin-9-yl]-1-methyl-, monohydrochloride (9CI) (CA INDEX NAME)

● HCl

RN 318468-65-4 CAPLUS

CN Benzonitrile, 3-[6-amino-9-(1,6-dihydro-1-methyl-6-oxo-3-pyridinyl)-9H-purin-8-yl]-, monohydrochloride (9CI) (CA INDEX NAME)

HCl

RN 318468-72-3 CAPLUS

CN 2(1H)-Pyridinone, 5-[6-amino-8-(3-fluorophenyl)-9H-purin-9-yl]-1-methyl-, dihydrate (9CI) (CA INDEX NAME)

●2 H₂O

RN 318468-96-1 CAPLUS

CN 2(1H)-Pyridinone, 5-[6-amino-8-(3-fluorophenyl)-2-(3-hydroxy-3-methyl-1-butynyl)-9H-purin-9-yl]-1-methyl-, monohydrochloride (9CI) (CA INDEX NAME)

Page 16

● HCl

RN 318468-97-2 CAPLUS

CN 2(1H)-Pyridinone, 5-[6-amino-8-(3-fluorophenyl)-2-[(1-hydroxycyclobutyl)ethynyl]-9H-purin-9-yl]-1-methyl-, monohydrochloride (9CI) (CA INDEX NAME)

● HCl

GI

$$R^{1}$$
 R^{2}
 R^{2}
 R^{3}
 R^{3}
 R^{3}

Novel fused imidazole compds. such as purine derivs. of general formula AΒ (I), pharmacol. acceptable salts thereof, or hydrates of both [wherein R1 = H, OH, halo, (un) substituted C1-8 alkyl, (un) substituted NH2; R2 = H, halo, (un) substituted NH2, (un) substituted C2-8 alkenyl, (un) substituted C3-8 alkynyl, (un) substituted C1-8 alkyl; R3 = (un) substituted C3-8 alkynyl, C3-8 alkenyl, (un) substituted C1-8 alkyl, (un) substituted aryl, (un) substituted heteroaryl, etc.; Ar = (un) substituted aryl, (un) substituted heteroaryl, optionally halo- or C1-6 alkyl-substituted N-C1-6 alkyl- or N-C3-6 cycloalkyl-oxopyridyl or -oxopyrimidyl; Q, W = N, CH; some proviso are given] are prepd. These compds. exhibit adenosine A2 receptor antagonism and are effective in the prevention and treatment of diabetes mellitus and complications of diabetes. Thus, 5-[6-amino-8-(3-fluorophenyl)-9H-purin-9-yl]-1,2-dihydro-2-pyridinone was condensed with N,N-dimethylformamide di-Me acetal in DMF at room temp. for 1 h, ice-cooled, treated with NaH at 0-6.degree. for 30 min, and methylated by Me iodide at room temp. for 16 h to give 5-[6-amino-8-(3-fluorophenyl)-9H-purin-9-yl]-1-methyl-1,2-dihydro-2pyridinone (II). II.HCl at 10 mg/kg p.o. in spontaneously diabetic mice lowered the blood sugar level to 47.3.+-.7.2% of the control animal.

RE.CNT 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d cost	•	
COST IN U.S. DOLLARS	SINCE FILE	TOTAL
·	ENTRY	SESSION
CONNECT CHARGES	0.68	1.17.
NETWORK CHARGES	. 0.12	0.24
SEARCH CHARGES	0.00	147.75
DISPLAY CHARGES	4.32	4.32
	5.12	153.48
CAPLUS FEE (5%)	0.25	0.25
FULL ESTIMATED COST	5.37	153.73
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	-0.65	-0.65
·		

IN FILE 'CAPLUS' AT 13:30:49 ON 21 JUN 2003

Welcome to STN International! Enter x:x

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PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

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                Web Page URLs for STN Seminar Schedule - N. America
NEWS 1
NEWS 2
                "Ask CAS" for self-help around the clock
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        Mar 24
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                MEDLINE Reload
NEWS 32 Apr 17
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NEWS 35
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NEWS 36
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NEWS 39
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NEWS 40 May 19
                Simultaneous left and right truncation added to WSCA
```

Patel <6/21/2003>

Page 2

NEWS 41	May 19	RAPRA	enhanced	with	new	search	field,	simultaneous	left	and
		right	truncation							

NEWS 42 Jun 06 Simultaneous left and right truncation added to CBNB

NEWS 43 Jun 06 PASCAL enhanced with additional data

NEWS 44 Jun 20 2003 edition of the FSTA Thesaurus is now available

NEWS EXPRESS April 4 CURRENT WINDOWS VERSION IS V6.01a, CURRENT
MACINTOSH VERSION IS V6.0b(ENG) AND V6.0Jb(JP),
AND CURRENT DISCOVER FILE IS DATED 01 APRIL 2003
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FILE 'HOME' ENTERED AT 13:37:37 ON 21 JUN 2003

=> file reg COST IN U.S. DOLLARS

SINCE FILE TOTAL ENTRY SESSION 0.21 0.21

FULL ESTIMATED COST

FILE 'REGISTRY' ENTERED AT 13:37:47 ON 21 JUN 2003 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2003 American Chemical Society (ACS)

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STRUCTURE FILE UPDATES: 20 JUN 2003 HIGHEST RN 534773-28-9 DICTIONARY FILE UPDATES: 20 JUN 2003 HIGHEST RN 534773-28-9

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2003

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Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details: http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

=> Uploading 10018688.3

Page 3

L1 STRUCTURE UPLOADED

=> d 11

L1 HAS NO ANSWERS

L1 STF

G1 Cb,Cy,Hy

Structure attributes must be viewed using STN Express query preparation.

=> s 11

SAMPLE SEARCH INITIATED 13:38:05 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 4902 TO ITERATE

20.4% PROCESSED 1000 ITERATIONS

0 ANSWERS

INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**

BATCH **COMPLETE**

PROJECTED ITERATIONS:

93844 TO 102236

PROJECTED ANSWERS: 0 TO

L2

0 SEA SSS SAM L1

=> s l1 sss full

FULL SEARCH INITIATED 13:38:11 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 100017 TO ITERATE

100.0% PROCESSED 100017 ITERATIONS

0 ANSWERS

SEARCH TIME: 00.00.05

L3

0 SEA SSS FUL L1

=> log y

COST IN U.S. DOLLARS

SINCE FILE TOTAL

ENTRY SESSION

FULL ESTIMATED COST 148.36

STN INTERNATIONAL LOGOFF AT 13:38:36 ON 21 JUN 2003

Patel

<6/21/2003>

Page 4

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Welcome to STN International! Enter x:x
LOGINID:sssptal611sxp
PASSWORD:
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TERMINAL (ENTER 1, 2, 3, OR ?):2

```
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NEWS
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        Aug 08
NEWS 5
                 Aquatic Toxicity Information Retrieval (AQUIRE)
         Aug 19
                 now available on STN
NEWS
         Aug 26
                 Sequence searching in REGISTRY enhanced
NEWS
      7
         Sep 03
                 JAPIO has been reloaded and enhanced
                 Experimental properties added to the REGISTRY file
NEWS
         Sep 16
NEWS 9
         Sep 16
                 CA Section Thesaurus available in CAPLUS and CA
         Oct 01
NEWS 10
                 CASREACT Enriched with Reactions from 1907 to 1985
NEWS 11
         Oct 24
                 BEILSTEIN adds new search fields
NEWS 12
        Oct 24
                Nutraceuticals International (NUTRACEUT) now available on STN
        Nov 18
NEWS 13
                DKILIT has been renamed APOLLIT
NEWS 14
        Nov 25
                More calculated properties added to REGISTRY
NEWS 15
        Dec 04
                 CSA files on STN
NEWS 16
        Dec 17
                 PCTFULL now covers WP/PCT Applications from 1978 to date
NEWS 17
        Dec 17
                 TOXCENTER enhanced with additional content
NEWS 18
        Dec.17
                 Adis Clinical Trials Insight now available on STN
NEWS 19
         Jan 29
                 Simultaneous left and right truncation added to COMPENDEX,
                 ENERGY, INSPEC
NEWS 20
         Feb 13
                 CANCERLIT is no longer being updated
NEWS 21
        Feb 24
                METADEX enhancements
NEWS 22
        Feb 24
                 PCTGEN now available on STN
NEWS 23
        Feb 24
                 TEMA now available on STN
NEWS 24
        Feb 26
                NTIS now allows simultaneous left and right truncation
NEWS 25
         Feb 26
                 PCTFULL now contains images
NEWS 26
        Mar 04
                 SDI PACKAGE for monthly delivery of multifile SDI results
NEWS 27
        Mar 20
                 EVENTLINE will be removed from STN
NEWS 28
        Mar 24
                 PATDPAFULL now available on STN
NEWS 29
         Mar 24
                 Additional information for trade-named substances without
                 structures available in REGISTRY
NEWS 30
                 Display formats in DGENE enhanced
        Apr 11
NEWS 31
        Apr 14
                 MEDLINE Reload
NEWS 32
        Apr 17
                 Polymer searching in REGISTRY enhanced
NEWS 33
         Jun 13
                 Indexing from 1947 to 1956 added to records in CA/CAPLUS
NEWS 34
        Apr 21
                 New current-awareness alert (SDI) frequency in
                 WPIDS/WPINDEX/WPIX
NEWS 35
         Apr 28
                 RDISCLOSURE now available on STN
NEWS 36
         May 05
                 Pharmacokinetic information and systematic chemical names
                 added to PHAR
NEWS 37
         May 15
                 MEDLINE file segment of TOXCENTER reloaded
        May 15
NEWS 38
                 Supporter information for ENCOMPPAT and ENCOMPLIT updated
NEWS 39
        May 16
                 CHEMREACT will be removed from STN
NEWS 40
        May 19
                 Simultaneous left and right truncation added to WSCA
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10018688.4 Page 2

NEWS 41 May 19 RAPRA enhanced with new search field, simultaneous left and right truncation

NEWS 42 Jun 06 Simultaneous left and right truncation added to CBNB

NEWS 43. Jun 06 PASCAL enhanced with additional data

NEWS 44 Jun 20 2003 edition of the FSTA Thesaurus is now available

NEWS EXPRESS April 4 CURRENT WINDOWS VERSION IS V6.01a, CURRENT MACINTOSH VERSION IS V6.0b(ENG) AND V6.0Jb(JP), AND CURRENT DISCOVER FILE IS DATED 01 APRIL 2003

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FILE 'HOME' ENTERED AT 13:43:39 ON 21 JUN 2003

=> file reg
COST IN U.S. DOLLARS

SINCE FILE TOTAL
ENTRY SESSION
0.21 0.21

FULL ESTIMATED COST

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STRUCTURE FILE UPDATES: 20 JUN 2003 HIGHEST RN 534773-28-9 DICTIONARY FILE UPDATES: 20 JUN 2003 HIGHEST RN 534773-28-9

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2003

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details: http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

=> Uploading 10018688.4

Page 3

L1 STRUCTURE UPLOADED

=> d l1

L1 HAS NO ANSWERS

Ll STR

$$G_3$$
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G1 Cb, Cy, Hy

G2 N,CH

G3 C,O,N,OH,NH2,X,Cb,Cy,Ak,H

Structure attributes must be viewed using STN Express query preparation.

9 ANSWERS

=> s 11

SAMPLE SEARCH INITIATED 13:44:11 FILE 'REGISTRY' SAMPLE SCREEN SEARCH COMPLETED - 259 TO ITERATE

100.0% PROCESSED 259 ITERATIONS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**

BATCH **COMPLETE**

PROJECTED ITERATIONS: · 4215 TO 6145

PROJECTED ANSWERS: 9 TO 360

9 SEA SSS SAM L1

=> s l1 sss full FULL SEARCH INITIATED 13:44:19 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 5904 TO ITERATE

100.0% PROCESSED 5904 ITERATIONS 137 ANSWERS

SEARCH TIME: 00.00.01

L3137 SEA SSS FUL L1

=> file caplus

COST IN U.S. DOLLARS SINCE FILE TOTAL ENTRY SESSION

FULL ESTIMATED COST 148.15 148.36

Patel <6/21/2003>

10018688.4 Page 4

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FILE COVERS 1907 - 21 Jun 2003 VOL 138 ISS 26 FILE LAST UPDATED: 20 Jun 2003 (20030620/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s 13 L4 19 L3

=> d l4 fbib hitstr abs total

L4 ANSWER 1 OF 19 CAPLUS COPYRIGHT 2003 ACS

AN 2003:3721 CAPLUS

DN 138:338396

TI Synthesis of novel 8-substituted carbocyclic analogs of 2',3'-dideoxyadenosine with activity against hepatitis B virus

AU Gudmundsson, Kristjan S.; Daluge, Susan M.; Condreay, Lynn D.; Johnson, Lance C.

CS Division of Chemistry, GlaxoSmithKline, Research Triangle Park, NC, 27709, USA

SO Nucleosides, Nucleotides & Nucleic Acids (2002), 21(11 & 12), 891-901 CODEN: NNNAFY; ISSN: 1525-7770

PB Marcel Dekker, Inc.

DT Journal

LA English

IT 515826-78-5P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(synthesis of novel carbocyclic analogs of dideoxyadenosine with activity against hepatitis B virus)

RN 515826-78-5 CAPLUS

CN Cyclopentanemethanol, 3-(6-amino-8-phenyl-9H-purin-9-yl)-, (1R,3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

IT 515826-72-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(synthesis of novel carbocyclic analogs of dideoxyadenosine with activity against hepatitis B virus)

RN 515826-72-9 CAPLUS

CN 9H-Purin-6-amine, 9-[(1S,3R)-3-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]met hyl]cyclopentyl]-8-phenyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

AB Synthesis and antiviral activity of several new 8-substituted carbocyclic analogs of D-2',3'-dideoxyadenosine are described. The new 8-substituted analogs were synthesized via lithiation of carbocyclic 2',3'-dideoxyadenosine followed by quenching with electrophiles. This methodol. allows for a divergent synthesis of a variety of 8-substituted analogs from carbocyclic 2',3'-dideoxyadenosine in high yields. 8-Me and 8-halogenated carbocyclic 2',3'-dideoxyadenosine analogs showed 6-25 fold more activity against hepatitis B virus than the unsubstituted carbocyclic D-2',3'-dideoxyadenosine.

RE.CNT 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

- L4 ANSWER 2 OF 19 CAPLUS COPYRIGHT 2003 ACS
- AN 2001:667342 CAPLUS
- DN 136:112192
- TI 2-Alkynyl-8-aryladenines possessing an amide moiety: their synthesis and structure-activity relationships of effects on hepatic glucose production induced via agonism of the A2B adenosine receptor
- AU Harada, H.; Asano, O.; Kawata, T.; Inoue, T.; Horizoe, T.; Yasuda, N.;
- Nagata, K.; Murakami, M.; Nagaoka, J.; Kobayashi, S.; Tanaka, I.; Abe, S.
- CS Tsukuba Research Laboratories, Eisai Company, Ltd., Tsukuba, Ibaraki, 300-2635, Japan
- SO Bioorganic & Medicinal Chemistry (2001), 9(10), 2709-2726 CODEN: BMECEP; ISSN: 0968-0896
- PB Elsevier Science Ltd.
- DT Journal
- LA English

10018688.4 Page 6

IT 232252-56-1P 232252-57-2P 391248-58-1P 391248-59-2P 391248-60-5P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL

(Biological study); PREP (Preparation) (prepn. and structure activity of alkynylaryladenines as A2A adenosine receptor agonists and effects on hepatic glucose prodn.)

RN 232252-56-1 CAPLUS

CN Benzamide, 3-[6-amino-8-(3-fluorophenyl)-2-[(1-hydroxycyclohexyl)ethynyl]-9H-purin-9-yl]-, monohydrochloride (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & \\ & & \\ &$$

● HCl

RN 232252-57-2 CAPLUS

CN Benzamide, 4-[6-amino-8-(3-fluorophenyl)-2-[(1-hydroxycyclohexyl)ethynyl]-9H-purin-9-yl]-, monohydrochloride (9CI) (CA INDEX NAME)

• HCl

RN 391248-58-1 CAPLUS

CN Benzamide, 2-[6-amino-8-(3-fluorophenyl)-2-[(1-hydroxycyclohexyl)ethynyl]-

Page 7

9H-purin-9-yl]-N-ethyl-, monohydrochloride (9CI) (CA INDEX NAME)

● HCl

RN 391248-59-2 CAPLUS

CN Benzamide, 3-[6-amino-8-(3-fluorophenyl)-2-[(1-hydroxycyclohexyl)ethynyl]-9H-purin-9-yl]-N-ethyl-, monohydrochloride (9CI) (CA INDEX NAME)

● HCl

RN 391248-60-5 CAPLUS

CN Benzamide, 4-[6-amino-8-(3-fluorophenyl)-2-[(1-hydroxycyclohexyl)ethynyl]-9H-purin-9-yl]-N-ethyl-, monohydrochloride (9CI) (CA INDEX NAME)

● HCl

ΙT 232252-44-7P 232254-90-9P 232254-91-0P 232254-92-1P 391249-14-2P 391249-15-3P 391249-16-4P 391249-17-5P 391249-21-1P 391249-22-2P 391249-23-3P 391249-24-4P 391249-25-5P 391249-29-9P 391249-30-2P 391249-31-3P 391249-32-4P 391249-33-5P 391249-37-9P 391249-38-0P 391249-39-1P 391249-40-4P 391249-41-5P RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (prepn. and structure activity of alkynylaryladenines as A2A adenosine receptor agonists and effects on hepatic glucose prodn.) RN 232252-44-7 CAPLUS Benzonitrile, 3-[6-amino-8-(3-fluorophenyl)-2-[(1-CN hydroxycyclohexyl)ethynyl]-9H-purin-9-yl]- (9CI) (CA INDEX NAME)

RN 232254-90-9 CAPLUS CN Benzonitrile, 3-[2-amino-6-chloro-8-(3-fluorophenyl)-9H-purin-9-yl]- (9CI) (CA INDEX NAME)

Page 9

RN 232254-91-0 CAPLUS

CN Benzonitrile, 3-[6-chloro-8-(3-fluorophenyl)-2-iodo-9H-purin-9-yl]- (9CI) (CA INDEX NAME)

RN 232254-92-1 CAPLUS

Benzonitrile, 3-[6-chloro-8-(3-fluorophenyl)-2-[(1-hydroxycyclohexyl)ethynyl]-9H-purin-9-yl]- (9CI) (CA INDEX NAME)

RN 391249-14-2 CAPLUS

CN

Page 10

Benzonitrile, 4-[2-amino-6-chloro-8-(3-fluorophenyl)-9H-purin-9-yl]- (9CI) CN (CA INDEX NAME)

391249-15-3 CAPLUS RN

Benzonitrile, 4-[6-chloro-8-(3-fluorophenyl)-2-iodo-9H-purin-9-yl]- (9CI) CN(CA INDEX NAME)

RN

391249-16-4 CAPLUS
Benzonitrile, 4-[6-chloro-8-(3-fluorophenyl)-2-[(1-hydroxycyclohexyl)ethynyl]-9H-purin-9-yl]- (9CI) (CA INDEX NAME) CN

Page 11

RN 391249-17-5 CAPLUS

CN Benzonitrile, 4-[6-amino-8-(3-fluorophenyl)-2-[(1-hydroxycyclohexyl)ethynyl]-9H-purin-9-yl]- (9CI) (CA INDEX NAME)

RN 391249-21-1 CAPLUS

CN Benzoic acid, 3-[2-amino-6-chloro-8-(3-fluorophenyl)-9H-purin-9-yl]-, ethyl ester (9CI) (CA INDEX NAME)

RN 391249-22-2 CAPLUS

CN Benzoic acid, 3-[6-chloro-8-(3-fluorophenyl)-2-iodo-9H-purin-9-yl]-, ethyl ester (9CI) (CA INDEX NAME)

RN 391249-23-3 CAPLUS

CN Benzoic acid, 3-[6-chloro-8-(3-fluorophenyl)-2-[(1-hydroxycyclohexyl)ethynyl]-9H-purin-9-yl]-, ethyl ester (9CI) (CA INDEX NAME)

RN 391249-24-4 CAPLUS

CN Benzoic acid, 3-[6-amino-8-(3-fluorophenyl)-2-[(1-hydroxycyclohexyl)ethynyl]-9H-purin-9-yl]-, ethyl ester (9CI) (CA INDEX NAME)

RN 391249-25-5 CAPLUS

CN Benzoic acid, 3-[6-amino-8-(3-fluorophenyl)-2-[(1-hydroxycyclohexyl)ethynyl]-9H-purin-9-yl]- (9CI) (CA INDEX NAME)

RN 391249-29-9 CAPLUS

CN Benzoic acid, 2-[2-amino-6-chloro-8-(3-fluorophenyl)-9H-purin-9-yl]-, ethyl ester (9CI) (CA INDEX NAME)

RN 391249-30-2 CAPLUS

CN Benzoic acid, 2-[6-chloro-8-(3-fluorophenyl)-2-iodo-9H-purin-9-yl]-, ethyl ester (9CI) (CA INDEX NAME)

RN 391249-31-3 CAPLUS

CN Benzoic acid, 2-[6-chloro-8-(3-fluorophenyl)-2-[(1-hydroxycyclohexyl)ethynyl]-9H-purin-9-yl]-, ethyl ester (9CI) (CA INDEX

Page 14

NAME)

RN 391249-32-4 CAPLUS

CN Benzoic acid, 2-[6-amino-8-(3-fluorophenyl)-2-[(1-hydroxycyclohexyl)ethynyl]-9H-purin-9-yl]-, ethyl ester (9CI) (CA INDEX NAME)

RN 391249-33-5 CAPLUS

CN Benzoic acid, 2-[6-amino-8-(3-fluorophenyl)-2-[(1-hydroxycyclohexyl)ethynyl]-9H-purin-9-yl]- (9CI) (CA INDEX NAME)

RN 391249-37-9 CAPLUS

CN Benzoic acid, 4-[2-amino-6-chloro-8-(3-fluorophenyl)-9H-purin-9-yl]-, ethyl ester (9CI) (CA INDEX NAME)

Page 15

R.F.

RN 391249-38-0 CAPLUS

CN Benzoic acid, 4-[6-chloro-8-(3-fluorophenyl)-2-iodo-9H-purin-9-yl]-, ethyl ester (9CI) (CA INDEX NAME)

$$\mathbb{R}^{-}$$

RN 391249-39-1 CAPLUS

CN Benzoic acid, 4-[6-chloro-8-(3-fluorophenyl)-2-[(1-hydroxycyclohexyl)ethynyl]-9H-purin-9-yl]-, ethyl ester (9CI) (CA INDEX NAME)

RN 391249-40-4 CAPLUS

CN Benzoic acid, 4-[6-amino-8-(3-fluorophenyl)-2-[(1-hydroxycyclohexyl)ethynyl]-9H-purin-9-yl]-, ethyl ester (9CI) (CA INDEX NAME)

RN 391249-41-5 CAPLUS

CN Benzoic acid, 4-[6-amino-8-(3-fluorophenyl)-2-[(1-hydroxycyclohexyl)ethynyl]-9H-purin-9-yl]- (9CI) (CA INDEX NAME)

$$C = C \qquad NH2 \qquad F$$

$$C = C \qquad N \qquad N \qquad CO_2CH_2Me$$

A series of 2-alkynyl-8-aryladenine derivs. bearing an amide moiety at the AB 9-position of adenine was synthesized. These analogs were evaluated for inhibitory activity on N-ethylcarboxamidoadenosine (NECA)-induced glucose prodn. in primary cultured rat hepatocytes. The m-primary benzamide deriv. (I) was the most potent compd. (IC50=0.017 .mu.M), being 15-fold more active than the corresponding 9-Me deriv. I showed 72- and 5.2-fold selectivity for human A2B receptor vs. human A1 and A2A receptors, resp. Structure-activity relation (SAR) studies of the synthesized compds. indicated that a three-carbon linker, fixed in the form of a benzene ring, between the adenine core and the amide moiety is important for both A2B antagonistic activity and selectivity. The IC50 values in rat hepatocyte glucose assay correlated well with the IC50 values in cAMP assay using Chinese hamster ovary cells stably transfected with human A2B receptors (r2 = 0.94). The A1 and A2A affinities showed no correlation with the potency to inhibit NECA-induced glucose prodn. These results strongly support the previous conclusion that adenosine agonist-induced hepatic glucose prodn. in rat hepatocytes is mediated through the A2B receptor.

Ι

RE.CNT 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 3 OF 19 CAPLUS COPYRIGHT 2003 ACS

AN 2001:400641 CAPLUS

DN 135:220646

TI Design of new selective inhibitors of cyclooxygenase-2 by dynamic assembly of molecular building blocks

AU Zhu, Jiang; Yu, Haibo; Fan, Hao; Liu, Haiyan; Shi, Yunyu

CS Laboratory of Structural Biology, School of Life Science, University of Science and Technology of China (USTC), Hefei, 230026, Peop. Rep. China

SO Journal of Computer-Aided Molecular Design (2001), 15(5), 447-463 CODEN: JCADEQ; ISSN: 0920-654X

PB Kluwer Academic Publishers

DT Journal

LA English

IT 359636-19-4

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)

(design of new selective inhibitors of cyclooxygenase-2 by dynamic assembly of mol. building blocks)

RN 359636-19-4 CAPLUS

CN Benzaldehyde, 2-[9-[4-(methylsulfonyl)-2-oxazolyl]-9H-purin-8-yl]- (9CI) (CA INDEX NAME)

Patel <6/21/2003>

A method of dynamically assembling mol. building blocks - DycoBlock - has AB been proposed and tested by Liu et al. [1]. This method is based on multiple-copy stochastic dynamics simulation in the presence of a receptor mol. In this method, a novel algorithm was used to dynamically assemble the mol. building blocks to form candidate compds. Currently, some new improvements have been incorporated into DycoBlock to make it more efficient. In the new version of DycoBlock, the binding energy and solvent accessible surface area (SASA) can be used to screen the resulting compds. A simple clustering algorithm based on mol. similarity was developed and used to classify the remaining compds. The revised DycoBlock was tested by breaking SC-558 - a selective inhibitor of cyclooxygenase-2 (COX-2) - into building blocks and reassembling them in the active site of the enzyme. The accuracy of recovery grew to 58.8% while it was only 16.7% in the previous version. Then, thirty-three kinds of mol. building blocks were used in the design of novel inhibitors and the investigation of diversity. As a result, a total of 1441 compds. was generated with high diversity. After the first screening procedure, there remained 864 reasonable compds. The results from clustering indicate that the structural motifs in the diarylheterocycle class of COX-2-selective inhibitors [2] have been generated using the revised DycoBlock, and their binding modes were investigated.

RE.CNT 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

. L4 ANSWER 4 OF 19 CAPLUS COPYRIGHT 2003 ACS

AN 2001:31502 CAPLUS

DN 134:100881

TI Preparation of fused imidazole compounds and remedies for diabetes mellitus

IN Asano, Osamu; Harada, Hitoshi; Yoshikawa, Seiji; Watanabe, Nobuhisa; Inoue, Takashi; Horizoe, Tatsuo; Yasuda, Nobuyuki; Oohashi, Kaya; Minami, Hiroe; Nagaoka, Junsaku; Murakami, Manabu; Kobayashi, Seiichi; Tanaka, Isao; Kawata, Tsutomu; Shimomura, Naoyuki; Akamatsu, Hirofumi; Ozeki, Naoki; Shimizu, Toshikazu; Hayashi, Kenji; Haga, Toyokazu; Negi, Shigeto; Naito, Toshihiko

PA Eisai Co., Ltd., Japan

SO PCT Int. Appl., 130 pp.

CODEN: PIXXD2

DT Patent

LA Japanese

FAN.CNT 1

Patel • <6/21/2003>

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                                           JP 2000-182786 A 20000619
                                           WO 2000-JP4358 W 20000630
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    318468-15-4P 318468-16-5P 318468-17-6P
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    318468-62-1P 318468-63-2P 318468-64-3P
    318468-65-4P 318468-71-2P 318468-72-3P
    318468-78-9P 318468-83-6P 318468-84-7P
    318468-85-8P 318468-86-9P 318468-87-0P
    318468-88-1P 318468-95-0P 318468-96-1P
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    318469-03-3P
    RL: BAC (Biological activity or effector, except adverse); BSU (Biological
    study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
    BIOL (Biological study); PREP (Preparation); USES (Uses)
        (prepn. of fused imidazole compds. as antagonists of adenosine A2
        receptors and remedies for diabetes mellitus)
RN
     318468-06-3 CAPLUS
CN
     9H-Purin-6-amine, 8-(3-fluorophenyl)-9-(6-methoxy-3-pyridinyl)- (9CI) (CA
     INDEX NAME)
```

RN 318468-10-9 CAPLUS

CN 2(1H)-Pyridinone, 5-[6-amino-8-(3-fluorophenyl)-9H-purin-9-yl]- (9CI) (CA INDEX NAME)

RN 318468-11-0 CAPLUS

CN 2(1H)-Pyridinone, 5-[6-amino-8-(3-fluorophenyl)-9H-purin-9-yl]-, monohydrochloride (9CI) (CA INDEX NAME)

● HCl

RN 318468-12-1 CAPLUS

CN 2(1H)-Pyridinone, 5-[8-(3-fluorophenyl)-6-(methylamino)-9H-purin-9-yl]-, monohydrochloride (9CI) (CA INDEX NAME)

Page 21

HCl

RN 318468-13-2 CAPLUS

CN 2(1H)-Pyridinone, 5-[6-(dimethylamino)-8-(3-fluorophenyl)-9H-purin-9-yl]-, monohydrochloride (9CI) (CA INDEX NAME)

● HCl

RN 318468-14-3 CAPLUS

CN 2(1H)-Pyridinone, 5-[6-amino-8-(3-fluorophenyl)-9H-purin-9-yl]-1-methyl-, monohydrochloride (9CI) (CA INDEX NAME)

Page 22

● HCl

CN

RN 318468-15-4 CAPLUS

2(1H)-Pyridinone, 5-[6-amino-8-(3-fluorophenyl)-9H-purin-9-yl]-1-methyl-(9CI) (CA INDEX NAME)

RN 318468-16-5 CAPLUS

CN 2(1H)-Pyridinone, 5-[6-(dimethylamino)-8-(3-fluorophenyl)-9H-purin-9-yl]-1-methyl-, monohydrochloride (9CI) (ĊA INDEX NAME)

HCl

RN 318468-17-6 CAPLUS CN 9H-Purin-6-amine, 8-(3-fluorophenyl)-2-iodo-9-(6-methoxy-3-pyridinyl)-(9CI) (CA INDEX NAME)

RN 318468-21-2 CAPLUS
CN 2(1H)-Pyridinone, 5-[6-amino-8-(3-fluorophenyl)-2-propoxy-9H-purin-9-yl]-1-methyl-, monohydrochloride (9CI) (CA INDEX NAME)

Page 24

RN

318468-22-3 CAPLUS 9H-Purin-6-amine, 8-(3-fluorophenyl)-9-(6-methoxy-3-pyridinyl)-2-(1pentynyl) - (9CI) (CA INDEX NAME)

RN318468-23-4 CAPLUS

9H-Purin-6-amine, 8-(3-fluorophenyl)-9-(6-methoxy-3-pyridinyl)-2-pentyl-CN(9CI) (CA INDEX NAME)

Page 25

RN 318468-24-5 CAPLUS

CN 2(1H)-Pyridinone, 5-[6-amino-8-(3-fluorophenyl)-2-pentyl-9H-purin-9-yl]-, monohydrochloride (9CI) (CA INDEX NAME)

● HCl

RN 318468-35-8 CAPLUS

CN 2(1H)-Pyridinone, 5-[6-amino-8-(3-fluorophenyl)-2-(3-hydroxy-3-methyl-1-butynyl)-9H-purin-9-yl]-, monohydrochloride (9CI) (CA INDEX NAME)

● HCl

RN 318468-44-9 CAPLUS

CN 2(1H)-Pyridinone, 5-[6-amino-8-(3-fluorophenyl)-9H-purin-9-yl]-1,4-dimethyl-, monohydrochloride (9CI) (CA INDEX NAME)

HCl

RN 318468-45-0 CAPLUS

CN 2(1H)-Pyridinone, 5-[6-amino-8-(3-fluorophenyl)-2-methyl-9H-purin-9-yl]-1-methyl-, monohydrochloride (9CI) (CA INDEX NAME)

● HCl

RN 318468-46-1 CAPLUS

2(1H)-Pyridinone, 5-[6-amino-8-(3-fluorophenyl)-9H-purin-9-yl]-1-ethyl-, monohydrochloride (9CI) (CA INDEX NAME)

CN

10018688.4 . Page 27

$$\mathbb{R}^{-}$$

HCl

RN 318468-47-2 CAPLUS

CN 2(1H)-Pyridinone, 5-[6-(cyclopropylamino)-8-(3-fluorophenyl)-9H-purin-9-yl]-1-methyl- (9CI) (CA INDEX NAME)

RN 318468-48-3 CAPLUS

CN 2(1H)-Pyridinone, 5-[6-amino-8-(3-fluorophenyl)-9H-purin-9-yl]-1-(2-hydroxyethyl)- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & \\ & & & \\ N & & \\ N$$

RN 318468-49-4 CAPLUS
CN 2(1H)-Pyridinone, 5-[6-amino-8-(3-fluorophenyl)-9H-purin-9-yl]-1(phenylmethyl)- (9CI) (CA INDEX NAME)

RN 318468-50-7 CAPLUS
CN 2(1H)-Pyridinone, 5-[6-amino-8-(3-fluorophenyl)-9H-purin-9-yl]-1-(2-propenyl)- (9CI) (CA INDEX NAME)

$$H_2C$$
 CH CH_2 N

RN 318468-51-8 CAPLUS CN 1(2H)-Pyridineacetic acid, 5-[6-amino-8-(3-fluorophenyl)-9H-purin-9-yl]-2-oxo-(9CI) (CA INDEX NAME)

RN 318468-52-9 CAPLUS

CN 1(2H)-Pyridinebutanoic acid, 5-[6-amino-8-(3-fluorophenyl)-9H-purin-9-yl]-2-oxo-(9CI) (CA INDEX NAME)

RN 318468-53-0 CAPLUS

CN 1(2H)-Pyridineacetamide, 5-[6-amino-8-(3-fluorophenyl)-9H-purin-9-yl]-2-oxo-(9CI) (CA INDEX NAME)

$$H_2N-C-CH_2-N$$

RN 318468-56-3 CAPLUS

CN 2(1H)-Pyridinone, 5-[6-amino-8-(3-methylphenyl)-9H-purin-9-yl]-1-methyl-, monohydrochloride (9CI) (CA INDEX NAME)

Page 30

$$\mathbb{R}^{-\frac{1}{2}}$$
 Me

● HCl

RN 318468-57-4 CAPLUS

CN

2(1H)-Pyridinone, 5-[6-amino-8-(3-nitrophenyl)-9H-purin-9-yl]-1-methyl-, monohydrochloride (9CI) (CA INDEX NAME)

● HCl

RN 318468-58-5 CAPLUS

CN 2(1H)-Pyridinone, 5-[6-amino-8-(3-nitrophenyl)-9H-purin-9-yl]-1-methyl-(9CI) (CA INDEX NAME)

Page 31

RN 318468-59-6 CAPLUS

CN 2(1H)-Pyridinone, 5-[6-amino-8-(3-aminophenyl)-9H-purin-9-yl]-1-methyl-, dihydrochloride (9CI) (CA INDEX NAME)

●2 . HCl

RN 318468-60-9 CAPLUS

CN 2(1H)-Pyridinone, 5-[6-amino-8-(3-aminophenyl)-9H-purin-9-yl]-1-methyl-(9CI) (CA INDEX NAME)

Page 32

RN 318468-61-0 CAPLUS

CN Methanesulfonamide, N-[3-[6-amino-9-(1,6-dihydro-1-methyl-6-oxo-3-pyridinyl)-9H-purin-8-yl]phenyl]-, monohydrochloride (9CI) (CA INDEX NAME)

● HCl

RN 318468-62-1 · CAPLUS

CN 2(1H)-Pyridinone, 5-[6-amino-8-[3-(trifluoromethyl)phenyl]-9H-purin-9-yl]-1-methyl-, monohydrochloride (9CI) (CA INDEX NAME)

Page 33

● HCl

RN 318468-63-2 CAPLUS

CN 2(1H)-Pyridinone, 5-[6-amino-8-(3-chlorophenyl)-9H-purin-9-yl]-1-methyl-, monohydrochloride (9CI) (CA INDEX NAME)

● HCl

RN 318468-64-3 CAPLUS

CN 2(1H)-Pyridinone, 5-[6-amino-8-(3-methoxyphenyl)-9H-purin-9-yl]-1-methyl-, monohydrochloride (9CI) (CA INDEX NAME)

Page 34

HCl

RN 318468-65-4 CAPLUS

CN Benzonitrile, 3-[6-amino-9-(1,6-dihydro-1-methyl-6-oxo-3-pyridinyl)-9H-purin-8-yl]-, monohydrochloride (9CI) (CA INDEX NAME)

● HCl

RN 318468-71-2 CAPLUS

CN 2(1H)-Pyridinone, 3-[6-amino-8-(3-fluorophenyl)-9H-purin-9-yl]-1-methyl-, monohydrochloride (9CI) (CA INDEX NAME)

Page 35

● HC

RN 318468-72-3 CAPLUS

CN 2(1H)-Pyridinone, 5-[6-amino-8-(3-fluorophenyl)-9H-purin-9-yl]-1-methyl-, dihydrate (9CI) (CA INDEX NAME)

●2 H₂O

RN 318468-78-9 CAPLUS

CN 9H-Purine, 6-chloro-9-(2-chloro-4-pyridinyl)-8-(3-fluorophenyl)- (9CI) (CA INDEX NAME)

RN 318468-83-6 CAPLUS

CN 9H-Purin-6-amine, 8-(3-fluorophenyl)-9-[2-[(4-methoxyphenyl)methoxy]-4-pyridinyl]- (9CI) (CA INDEX NAME)

$$\mathbb{R}^{-}$$

RN 318468-84-7 CAPLUS

CN 2(1H)-Pyridinone, 4-[6-amino-8-(3-fluorophenyl)-9H-purin-9-yl]- (9CI) (CA INDEX NAME)

Page 37

RN 318468-85-8 CAPLUS

CN 2(1H)-Pyridinone, 4-[6-amino-8-(3-fluorophenyl)-9H-purin-9-yl]-1-methyl-(9CI) (CA INDEX NAME)

RN 318468-86-9 CAPLUS

CN 9H-Purin-6-amine, 8-(3-fluorophenyl)-9-(4-pyridinyl)- (9CI) (CA INDEX NAME)

RN 318468-87-0 CAPLUS

CN 2(1H)-Pyridinone, 5-[8-(3-fluorophenyl)-9H-purin-9-yl]-1-methyl- (9CI) (CA INDEX NAME)

Page 38

RN 318468-88-1 CAPLUS

CN 9H-Purin-6-amine, 9-(6-chloro-3-pyridazinyl)-8-(3-fluorophenyl)-N,N-dimethyl- (9CI) (CA INDEX NAME)

RN 318468-95-0 CAPLUS

9H-Purin-6-amine, 8-(3-fluorophenyl)-9-(6-methoxy-3-pyridazinyl)-N,N-dimethyl- (9CI) (CA INDEX NAME)

RN 318468-96-1 CAPLUS

CN 2(1H)-Pyridinone, 5-[6-amino-8-(3-fluorophenyl)-2-(3-hydroxy-3-methyl-1-butynyl)-9H-purin-9-yl]-1-methyl-, monohydrochloride (9CI) (CA INDEX NAME)

CN

HC]

RN 318468-97-2 CAPLUS

CN 2(1H)-Pyridinone, 5-[6-amino-8-(3-fluorophenyl)-2-[(1-hydroxycyclobutyl)ethynyl]-9H-purin-9-yl]-1-methyl-, monohydrochloride (9CI) (CA INDEX NAME)

● HCl

RN 318468-98-3 CAPLUS

CN 9H-Purin-6-amine, 9-(6-methoxy-3-pyridinyl)-8-(2-pyridinyl)- (9CI) (CA INDEX NAME)

RN 318469-02-2 CAPLUS

CN 2(1H)-Pyridinone, 5-[6-amino-8-(2-pyridinyl)-9H-purin-9-yl]- (9CI) (CA INDEX NAME)

RN 318469-03-3 CAPLUS

CN 2(1H)-Pyridinone, 5-[6-amino-8-(2-pyridinyl)-9H-purin-9-yl]-1-methyl-(9CI) (CA INDEX NAME)

IT 318468-09-6P 318468-19-8P 318468-20-1P

318468-54-1P 318468-76-7P 318468-82-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. of fused imidazole compds. as antagonists of adenosine A2 receptors and remedies for diabetes mellitus)

RN 318468-09-6 CAPLUS

CN 9H-Purine, 6-chloro-8-(3-fluorophenyl)-9-(6-methoxy-3-pyridinyl)- (9CI) (CA INDEX NAME)

Page 41

10018688.4

RN 318468-19-8 CAPLUS

CN 9H-Purin-2-amine, 6-chloro-8-(3-fluorophenyl)-9-(6-methoxy-3-pyridinyl)-(9CI) (CA INDEX NAME)

RN 318468-20-1 CAPLUS

CN 9H-Purine, 6-chloro-8-(3-fluorophenyl)-2-iodo-9-(6-methoxy-3-pyridinyl)-(9CI) (CA INDEX NAME)

RN 318468-54-1 CAPLUS

CN Ethanol, 2-[[8-(3-fluorophenyl)-9-(6-methoxy-3-pyridinyl)-9H-purin-6-yl]amino]- (9CI) (CA INDEX NAME)

Page 42

RN 318468-76-7 CAPLUS

CN 2(1H)-Pyridinone, 5-[6-chloro-8-(3-fluorophenyl)-9H-purin-9-yl]-1-methyl-(9CI) (CA INDEX NAME)

$$\mathbb{R}^{-1}$$

RN 318468-82-5 CAPLUS

CN 9H-Purin-6-amine, 9-(2-chloro-4-pyridinyl)-8-(3-fluorophenyl)- (9CI) (CA INDEX NAME)

GΙ

$$\mathbb{R}^{2}$$
 \mathbb{Q}
 \mathbb{N}
 \mathbb{R}^{3}
 \mathbb{R}^{3}
 \mathbb{R}^{3}

AΒ Novel fused imidazole compds. such as purine derivs. of general formula (I), pharmacol. acceptable salts thereof, or hydrates of both [wherein R1 = H, OH, halo, (un) substituted C1-8 alkyl, (un) substituted NH2; R2 = H, halo, (un) substituted NH2, (un) substituted C2-8 alkenyl, (un) substituted C3-8 alkynyl, (un) substituted C1-8 alkyl; R3 = (un) substituted C3-8 alkynyl, C3-8 alkenyl, (un) substituted C1-8 alkyl, (un) substituted aryl, (un) substituted heteroaryl, etc.; Ar = (un) substituted aryl, (un) substituted heteroaryl, optionally halo- or C1-6 alkyl-substituted N-C1-6 alkyl- or N-C3-6 cycloalkyl-oxopyridyl or -oxopyrimidyl; Q, W = N, CH; some proviso are given] are prepd. These compds. exhibit adenosine A2 receptor antagonism and are effective in the prevention and treatment of diabetes mellitus and complications of diabetes. Thus, 5-[6-amino-8-(3-fluorophenyl)-9H-purin-9-yl]-1,2-dihydro-2-pyridinone was condensed with N,N-dimethylformamide di-Me acetal in DMF at room temp. for 1 h, ice-cooled, treated with NaH at 0-6.degree. for 30 min, and methylated by Me iodide at room temp. for 16 h to give 5-[6-amino-8-(3-fluorophenyl)-9H-purin-9-yl]-1-methyl-1,2-dihydro-2pyridinone (II). II.HCl at 10 mg/kg p.o. in spontaneously diabetic mice lowered the blood sugar level to 47.3.+-.7.2% of the control animal. RE.CNT 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD

L4 ANSWER 5 OF 19 CAPLUS COPYRIGHT 2003 ACS

AN 1999:629465 CAPLUS

DN 131:337302

TI First Evident Generation of Purin-2-yllithium: Lithiation of an 8-Silyl-Protected 6-Chloropurine Riboside as a Key Step for the Synthesis of 2-Carbon-Substituted Adenosines

AU Kumamoto, Hiroki; Tanaka, Hiromichi; Tsukioka, Ryota; Ishida, Yumiko; Nakamura, Akiko; Kimura, Satoe; Hayakawa, Hiroyuki; Kato, Keisuke; Miyasaka, Tadashi

ALL CITATIONS AVAILABLE IN THE RE FORMAT

CS School of Pharmaceutical Sciences, Showa University, Shinagawa-ku Tokyo, 142-8555, Japan

SO Journal of Organic Chemistry (1999), 64(21), 7773-7780 CODEN: JOCEAH; ISSN: 0022-3263

PB American Chemical Society

DT Journal

LA English

OS CASREACT 131:337302

IT 249757-31-1P

RL: SPN (Synthetic preparation); PREP (Preparation) (first evident generation of purinyl-lithium via lithiation of a silyl-protected chloropurine riboside as a key step)

RN 249757-31-1 CAPLUS

CN 9H-Purine, 6-chloro-9-[2,3-O-(1-methylethylidene)-5-O-(triphenylmethyl)-.beta.-D-ribofuranosyl]-8-phenyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

AB Lithiation at the 2-position of a purine ring has been accomplished for the first time by using 6-chloro-9-(2,3-0-isopropylidene-5-0-trityl-.beta.-D-ribofuranosyl)-8-(triisopropylsilyl)purine as a substrate and LTMP as a lithiating agent. The 8-triisopropylsilyl group did not undergo anionic migration and, thus, allowed the ready generation of the C2-lithiated species by preventing deprotonation at the 8-position. The electron-withdrawing 6-chlorine atom plays an essential role to this C2-lithiation. Reactions of the lithiated species with electrophiles gave the 2-substituted products (Me, Et, i-Pr, CH(OH)C6H11, C(OH)Me2, CHO, CO2Me, and I) mostly in good yields. Ammonolysis of the 6-chlorine atom of these products (heating at 110 .degree.C in a sealed tube with NH3/MeOH) effected simultaneous desilylation at the 8-position to give the corresponding adenosine analogs. The whole sequence provides a new and highly general method for the synthesis of 2-substituted adenosines.

RE.CNT 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 6 OF 19 CAPLUS COPYRIGHT 2003 ACS

AN 1999:451298 CAPLUS

DN 131:116251

TI Preparation of purine derivatives as adenosine A2 receptor antagonists for the treatment of diabetes

IN Asano, Osamu; Harada, Hitoshi; Hoshino, Yorihisa; Yoshikawa, Seiji; Inoue, Takashi; Horizoe, Tatsuo; Yasuda, Nobuyuki; Nagata, Kaya; Nagaoka, Junsaku; Murakami, Manabu; Kobayashi, Seiichi

PA Eisai Co., Ltd., Japan

SO PCT Int. Appl., 167 pp.

CODEN: PIXXD2

DT Patent

LA Japanese

FAN. CNT 1

PATENT NO. KIND DATE APPLICATION NO. DATE

PI WO 9935147 A1 19990715 WO 1998-JP5870 19981224

W: AU, BR, CA, CN, HU, KR, MX, NO, NZ, RU, US

RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,

PT, SE

Patel

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	EP 1054012 A1	JP 1998-526. A 19980105 WO 1998-JP5870 W 19981224 20001122 EP 1998-961528 19981224
	EP 1054012 B1 R: AT, BE, CH, I IE, FI	20030611 DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
	EP 1300147 A1 R: AT, BE, CH, I IE, FI, CY	JP 1998-526 A 19980105 WO 1998-JP5870 W 19981224 20030409 EP 2002-29118 19981224 DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
	US 6579868 B1	JP 1998-526 A 19980105 EP 1998-961528 A319981224 20030617 US 2000-582840 20000705
os	MARPAT 131:116251	JP 1998-526 A 19980105 WO 1998-JP5870 W 19981224
TT 232252-44-7P 232252-45-8P 232252-46-9P 232252-47-0P 232252-48-1P 232252-49-2P 232252-50-5P 232252-54-9P 232252-55-0P 232252-56-1P 232252-57-2P 232252-58-3P 232252-59-4P 232252-60-7P 232252-61-8P 232252-62-9P 232253-00-8P 232253-03-1P 232253-54-2P 232253-56-4P 232253-87-1P 232253-88-2P 232254-05-6P 232254-66-9P 232254-72-7P 232254-73-8P 232254-74-9P 232254-75-0P 232254-86-3P 232255-16-2P		
RN CN		

RN 232252-45-8 CAPLUS

Page 46

CN Cyclohexanol, 1-[[6-amino-8-(3-fluorophenyl)-9-phenyl-9H-purin-2yl]ethynyl]-, monohydrochloride (9CI) (CA INDEX NAME)

HC1

232252-46-9 CAPLUS RN

Cyclohexanol, 1-[[6-amino-9-[4-(dimethylamino)phenyl]-8-(3-fluorophenyl)-CN9H-purin-2-yl]ethynyl]-, dihydrochloride (9CI) (CA INDEX NAME)

●2 HC1

RN

232252-47-0 CAPLUS Cyclohexanol, 1-[[6-amino-8-(3-fluorophenyl)-9-[4-(4-morpholinyl)phenyl]-9H-purin-2-yl]ethynyl]-, dihydrochloride (9CI) (CA INDEX NAME) CN

Page 47

HCl

RŃ

232252-48-1 CAPLUS
Cyclohexanol, 1-[[6-amino-8-(3-fluorophenyl)-9-(4-methoxyphenyl)-9H-purin2-yl]ethynyl]-, monohydrochloride (9CI) (CA INDEX NAME) CN

HC1

RN 232252-49-2 CAPLUS

Benzonitrile, 2-amino-5-[6-amino-8-(3-fluorophenyl)-2-[(1-CNhydroxycyclohexyl)ethynyl]-9H-purin-9-yl]-, dihydrochloride (9CI) INDEX NAME)

Page 48

2 HCl

RN 232252-50-5 CAPLUS

Benzonitrile, 4-[6-amino-8-(3-fluorophenyl)-2-[(1-CN hydroxycyclohexyl)ethynyl]-9H-purin-9-yl]-, monohydrochloride (9CI) (CA INDEX NAME)

● HCl

RN

232252-54-9 CAPLUS Benzoic acid, 3-[6-amino-8-(3-fluorophenyl)-2-[(1-CN hydroxycyclohexyl)ethynyl]-9H-purin-9-yl]-, ethyl ester, monohydrochloride (9CI) (CA INDEX NAME)

Page 49

HCl

RN

232252-55-0 CAPLUS
Benzamide, 3-[6-amino-8-(3-fluorophenyl)-2-[(1-hydroxycyclohexyl)ethynyl]-CN9H-purin-9-yl]- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} O \\ H_2N-C \\ \hline \\ OH \\ \hline \\ NH_2 \\ \end{array}$$

RN232252-56-1 CAPLUS

Benzamide, 3-[6-amino-8-(3-fluorophenyl)-2-[(1-hydroxycyclohexyl)ethynyl]-9H-purin-9-yl]-, monohydrochloride (9CI) (CA INDEX NAME) CN

Page 50

$$\bigcap_{\text{OH}} \bigcap_{\text{N}} \bigcap_{\text{N}}$$

RN

232252-57-2 CAPLUS
Benzamide, 4-[6-amino-8-(3-fluorophenyl)-2-[(1-hydroxycyclohexyl)ethynyl]-CN 9H-purin-9-yl]-, monohydrochloride (9CI) (CA INDEX NAME)

HC1

RN232252-58-3 CAPLUS

CNBenzamide, 2-amino-5-[6-amino-8-(3-fluorophenyl)-2-[(1hydroxycyclohexyl)ethynyl]-9H-purin-9-yl]-, dihydrochloride (9CI) (CA INDEX NAME)

Page 51

$$\bigcap_{H_2N-C} \bigcap_{N+2} \bigcap$$

•2 HCl

RN 232252-59-4 CAPLUS

CN Benzoic acid, 3-[6-amino-8-(3-fluorophenyl)-2-[(1-hydroxycyclohexyl)ethynyl]-9H-purin-9-yl]-, monohydrochloride (9CI) (CAINDEX NAME)

● HCl

RN 232252-60-7 CAPLUS

CN Benzoic acid, 4-[6-amino-8-(3-fluorophenyl)-2-[(1-hydroxycyclohexyl)ethynyl]-9H-purin-9-yl]-, monohydrochloride (9CI) (CA INDEX NAME)

10018688.4 Page 52

HCl

RN 232252-61-8 CAPLUS

CN Benzenecarboximidamide, 3-[6-amino-8-(3-fluorophenyl)-2-[(1-hydroxycyclohexyl)ethynyl]-9H-purin-9-yl)-, dihydrochloride (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & \text{NH} \\ & \text{H}_2\text{N}-\text{C} \\ & \text{OH} \end{array}$$

●2 HCl

RN 232252-62-9 CAPLUS

CN Benzenecarboximidamide, 3-[6-amino-8-(3-fluorophenyl)-2-[(1-hydroxycyclohexyl)ethynyl]-9H-purin-9-yl]-N-cyano-, dihydrochloride (9CI) (CA INDEX NAME)

2 HCl

RN232253-00-8 CAPLUS

Cyclohexanol, 1-[[6-amino-8-(3-fluorophenyl)-9-(3-methoxyphenyl)-9H-purin-CN2-yl]ethynyl]-, monohydrochloride (9CI) (CA INDEX NAME)

HC1

RN

232253-03-1 CAPLUS Cyclohexanol, 1-[[6-amino-9-cyclopentyl-8-(3-fluorophenyl)-9H-purin-2-CNyl]ethynyl]-, monohydrochloride (9CI) (CA INDEX NAME)

Page 54

● HCl

RN 232253-54-2 CAPLUS

CN Cyclopentanecarboxamide, 2-[6-amino-8-(3-fluorophenyl)-2-[(1-hydroxycyclopentyl)ethynyl]-9H-purin-9-yl]-N-ethyl-, monohydrochloride, (1R,2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

HCl

RN 232253-56-4 CAPLUS

CN Cyclopentanol, 1-[[6-amino-9-cyclopropyl-8-(3-fluorophenyl)-9H-purin-2-yl]ethynyl]-, monohydrochloride (9CI) (CA INDEX NAME)

Page 55

● HCl

RN 232253-87-1 CAPLUS

CN 1-Pentyn-3-ol, 1-[6-amino-9-cyclopropyl-8-(3-fluorophenyl)-9H-purin-2-yl]-3-ethyl-, monohydrochloride (9CI) (CA INDEX NAME)

HC1

RN 232253-88-2 CAPLUS

CN 3-Butyn-2-ol, 4-[6-amino-9-cyclopropyl-8-(3-fluorophenyl)-9H-purin-2-yl]-2-methyl-, monohydrochloride (9CI) (CA INDEX NAME)

● HCl

RN 232254-05-6 CAPLUS

CN Cyclobutanol, 1-[[6-amino-9-cyclopropyl-8-(2,3-difluorophenyl)-9H-purin-2-yl]ethynyl]-, monohydrochloride (9CI) (CA INDEX NAME)

Page 56

● HCl

RN 232254-66-9 CAPLUS

CN 3-Buten-2-ol, 4-[6-amino-8-(3-fluorophenyl)-9-phenyl-9H-purin-2-yl]-2-methyl-, monohydrochloride, (3E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

HC:

RN 232254-72-7 CAPLUS

CN Cyclobutanol, 1-[(1E)-2-[6-amino-9-cyclopropyl-8-(3-fluorophenyl)-9H-purin-2-yl]ethenyl]-, monohydrochloride (9CI) (CA INDEX NAME)

Double bond geometry as shown.

HC1

Page 57.

● HCl

RN 232254-73-8 CAPLUS

CN Cyclopentanol, 1-[(1E)-2-[6-amino-9-cyclopropyl-8-(3-fluorophenyl)-9H-purin-2-yl]ethenyl]-, monohydrochloride (9CI) (CA INDEX NAME)

Double bond geometry as shown.

HCl

RN 232254-74-9 CAPLUS

CN 3-Buten-2-ol, 4-[6-amino-9-cyclopropyl-8-(3-fluorophenyl)-9H-purin-2-yl]-2-methyl-, monohydrochloride, (3E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

Page 58

● HCl

RN 232254-75-0 CAPLUS

CN 3-Buten-2-ol, 4-[6-amino-9-cyclopropyl-8-(3-fluorophenyl)-9H-purin-2-yl]-2-methyl-, (3E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

RN 232254-86-3 CAPLUS

CN 9H-Purine-2-propanol, 6-amino-9-[4-(dimethylamino)phenyl]-8-(3-fluorophenyl)-.alpha.,.alpha.-dimethyl-, dihydrochloride (9CI) (CA INDEX NAME)

●2 HCl

Page 59

RN

232255-16-2 CAPLUS
Cyclohexanol, 1-[[6-amino-9-[4-(dimethylamino)phenyl]-8-(3-fluorophenyl)-9H-purin-2-yl]ethynyl]- (9CI) (CA INDEX NAME) CN

ΙT 232254-90-9P 232254-91-0P 232254-92-1P

232254-93-2P 232254-94-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. of purine derivs. as adenosine A2 receptor antagonists for treatment of diabetes)

RN 232254-90-9 CAPLUS

Benzonitrile, 3-[2-amino-6-chloro-8-(3-fluorophenyl)-9H-purin-9-yl]- (9CI) CN (CA INDEX NAME)

$$H_2N$$
 N
 N
 R
 CN

RN232254-91-0 CAPLUS

CNBenzonitrile, 3-[6-chloro-8-(3-fluorophenyl)-2-iodo-9H-purin-9-yl]- (9CI) (CA INDEX NAME)

RN 232254-92-1 CAPLUS

CN Benzonitrile, 3-[6-chloro-8-(3-fluorophenyl)-2-[(1-hydroxycyclohexyl)ethynyl]-9H-purin-9-yl]- (9CI) (CA INDEX NAME)

RN 232254-93-2 CAPLUS

CN Benzonitrile, 3-[6-amino-8-(3-fluorophenyl)-2-iodo-9H-purin-9-yl]- (9CI) (CA INDEX NAME)

RN 232254-94-3 CAPLUS

10018688.4 Page 61

CN Benzenecarboximidamide, 3-[6-amino-8-(3-fluorophenyl)-2-iodo-9H-purin-9-yl]-N-cyano-(9CI) (CA INDEX NAME)

GI

$$\begin{array}{c|c}
R^2 \\
N \\
N \\
N \\
R^4
\end{array}$$

AB The title compds. I [R1 = (un)substituted arom. ring (which may contain heteroatom), etc.; W = CH2CH2, etc.; R2 = H, (un)substituted alkyl, etc.; R3 = H, (un)substituted cycloalkyl, etc.; R4 = H, (un)substituted alkyl, heteroaryl, etc.; a proviso is given] are prepd. In an in vitro test for A2a receptor antagonism, the title compd. II showed the Ki value of 0.002.mu.M.

RE.CNT 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 7 OF 19 CAPLUS COPYRIGHT 2003 ACS

I

AN 1999:112311 CAPLUS

DN 130:209672

TI Synthesis, corticotropin-releasing factor receptor binding affinity, and

Patel

pharmacokinetic properties of triazolo-, imidazo-, and pyrrolopyrimidines and -pyridines

- AU Chorvat, Robert J.; Bakthavatchalam, Rajagopal; Beck, James P.; Gilligan, Paul J.; Wilde, Richard G.; Cocuzza, Anthony J.; Hobbs, Frank W.; Cheeseman, Robert S.; Curry, Matthew; Rescinito, Joseph P.; Krenitsky, Paul; Chidester, Dennis; Yarem, Jerry A.; Klaczkiewicz, John D.; Hodge, C. Nicholas; Aldrich, Paul E.; Wasserman, Zelda R.; Fernandez, Christine H.; Zaczek, Robert; Fitzgerald, Lawrence W.; Huang, Shiew-Mei; Shen, Helen L.; Wong, Y. Nancy; Chien, Ben M.; Quon, Check Y.; Arvanitis, Argyrios
- CS Departments of Chemical and Physical Sciences and of Biological Sciences, DuPont Pharmaceuticals Company, Wilmington, DE, 19880-0500, USA
- SO Journal of Medicinal Chemistry (1999), 42(5), 833-848 CODEN: JMCMAR; ISSN: 0022-2623
- PB American Chemical Society
- DT Journal
- LA English
- IT 220953-13-9P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(CRF receptor binding affinity of triazolo-, imidazo-, and pyrrolopyrimidines and -pyridines prepd. from amines, alcs., pyrimidine and pyridine derivs.)

RN 220953-13-9 CAPLUS

CN 9H-Purin-6-amine, N-butyl-9-(2-chloro-4,6-dimethoxyphenyl)-N-ethyl-2-methyl-8-phenyl- (9CI) (CA INDEX NAME)

IT 220952-86-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(CRF receptor binding affinity of triazolo-, imidazo-, and pyrrolopyrimidines and -pyridines prepd. from amines, alcs., pyrimidine and pyridine derivs.)

RN 220952-86-3 CAPLUS

CN 9H-Purine, 6-chloro-9-(2-chloro-4,6-dimethoxyphenyl)-2-methyl-8-phenyl-(9CI) (CA INDEX NAME)

GΙ

AB The synthesis and CRF receptor binding affinities of several new series of N-aryltriazolo- and -imidazopyrimidines and -pyridines, e.g., I (R1 = n-Bu, CHEt2, CHEtCH2OH, etc., R2 = Et, H, Me, etc., Q = N, CH, CMe, CCF3, Z = N, O), are described. These cyclized systems were prepd. from appropriately substituted diaminopyrimidines or -pyridines by nitrous acid, orthoester, or acyl halide treatment. Variations of amino (ether) pendants and arom. substituents have defined the structure-activity relationships of these series and resulted in the identification of a variety of high-affinity agents (Ki's < 10 nM). On the basis of this property and lipophilicity differences, six of these compds. were initially chosen for rat pharmacokinetic (PK) studies. Good oral bioavailability, high plasma levels, and duration of four of these compds. prompted further PK studies in the dog following both i.v. and oral routes of administration. Results from this work indicated I [R1 = R2 = (CH2)OMe, Q = Z = N; R1 CHEtCH2OMe, R2 = H, Q = Z = N] had properties believe to be necessary for a potential therapeutic agent, and I [R1 = R2 = (CH2)OMe, Q = Z = N] has been selected for further pharmacol. studies that will be reported in due course.

RE.CNT 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 8 OF 19 CAPLUS COPYRIGHT 2003 ACS

AN 1997:757616 CAPLUS

DN 128:58662

Page 64

TI Synthesis and Miscoding Specificity of Oligodeoxynucleotide Containing 8-Phenyl-2'-deoxyguanosine

AU Kohda, Kohfuku; Tsunomoto, Hirotaka; Kasamatsu, Toshio; Sawamura, Fumiko; Terashima, Isamu; Shibutani, Shinya

CS Faculty of Pharmaceutical Sciences, Nagoya City University, Nagoya, 467, Japan

SO Chemical Research in Toxicology (1997), 10(12), 1351-1358 CODEN: CRTOEC; ISSN: 0893-228X

PB American Chemical Society

DT Journal

LA English

OS CASREACT 128:58662

IT 199991-98-5P 199992-01-3P 199992-04-6P 199992-07-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(synthesis and miscoding specificity of oligodeoxynucleotide contg. 8-phenyl-2'-deoxyguanosine)

RN 199991-98-5 CAPLUS

CN Guanosine, 2'-deoxy-8-phenyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 199992-01-3 CAPLUS

CN Guanosine, 2'-deoxy-N-(2-methyl-1-oxopropyl)-8-phenyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 199992-04-6 CAPLUS:

CN Guanosine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-deoxy-N-(2-methyl-1-oxopropyl)-8-phenyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 199992-07-9 CAPLUS

CN Guanosine, 5'-0-[bis(4-methoxyphenyl)phenylmethyl]-2'-deoxy-N-(2-methyl-1-oxopropyl)-8-phenyl-, 3'-[2-cyanoethyl bis(1-methylethyl)phosphoramidite] (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Aryl radicals and arenediazonium ions are suspected to react with cellular AB DNA, resulting in C8-arylguanine adducts. 8-Phenyl-2'-deoxyguanosine (8-PhdG) was synthesized as a model adduct by reacting dG with benzenediazonium chloride and incorporated into oligodeoxynucleotides using phosphoramidite techniques. A site-specifically modified oligodeoxynucleotide contg. a single 8-PhdG was then used as a template for primer extension reactions catalyzed by the intact (exo+) or 3'.fwdarw.5' exonuclease-free (exo-) Klenow fragment of Escherichia coli DNA polymerase I and mammalian DNA polymerase a (pol .alpha.). Although primer extensions catalyzed by the Klenow fragments were retarded at the position of 8-PhdG, most of the primer extension passed the lesion to form the fully extended products. In contrast, primer extensions catalyzed by pol .alpha. were strongly blocked opposite the lesion. The fully extended products formed during DNA synthesis were analyzed to quantify the miscoding specificities of 8-PhdG. The exo- Klenow fragment incorporated primarily dCMP, the correct base, opposite 8-PhdG, along with small amts. of incorporation of dAMP. Two-base deletions were also obsd. In

contrast, the exo+ Klenow fragment incorporated dCMP opposite the lesion. When pol .alpha. was used, 8-PhdG promoted small amts. of misincorporation of dAMP and dGMP as well as one- and two-base deletions. The duplex contg. 8-PhdG.cntdot.dG was thermally and thermodynamically more stable than dG.cntdot.dA. The duplex contg. 8-PhdG.cntdot.dA was thermodynamically more stable than dG.cntdot.dA. We conclude that 8-PhdG is a weak miscoding lesion, capable of generating G .fwdarw. T and G .fwdarw. C transversions and deletions in cells.

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ANSWER 9 OF 19 CAPLUS COPYRIGHT 2003 ACS
L4
AN
    1997:15548 CAPLUS
DN
     126:104368
TI
     Process for the preparation of purine nucleosides using
    palladium-catalyzed coupling reaction
IN
    Tu, Chi; Eaton, Bruce
PA
    Nexstar Pharmaceuticals, Inc:, USA
SO
    U.S., 7 pp., Cont.-in-part of U.S. 5,428,149.
    CODEN: USXXAM
DT
    Patent
LΑ
    English
FAN.CNT 5
     PATENT NO.
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                                          APPLICATION NO.
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                                          AU 1996-42412
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PATENT FAMILY INFORMATION:
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            SD, SE, SK, UA, VN
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Ţ	US 5	6333	61		A		1997	0527		US	199	95-4	0789	3	1995 1993	0321			
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    JP 11506107
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                                           US 1997-952338
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    US 5719273
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IT
    172945-44-7P 172945-47-0P 172945-50-5P
    RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP
     (Preparation)
        (process for the prepn. of purine nucleosides using palladium-catalyzed
        coupling reaction)
RN
     172945-44-7 CAPLUS
    Adenosine, 8-phenyl-, 2',3',5'-triacetate (9CI) (CA INDEX NAME)
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Absolute stereochemistry.

RN 172945-47-0 CAPLUS

CN Adenosine, 2'-deoxy-8-phenyl-, 3',5'-diacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 172945-50-5 CAPLUS

CN Guanosine, 8-phenyl-, 2',3',5'-triacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.

GΙ

Improved method for the prepn. of modified purine nucleosides at the 2-, AB 6-, or 8-position of the purine ring, e.g. I, using a palladium-catalyzed coupling reaction, is reported.

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ANSWER 10 OF 19 CAPLUS COPYRIGHT 2003 ACS
L4
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Ι

1996:476827 CAPLUS AN

DN 125:143238

Palladium-catalyzed C-alkenylation of purine nucleosides with organotins TI

IN Tu, Chi; Eaton, Bruce

PΑ Nexstar Pharmaceuticals, Inc., USA

SO PCT Int. Appl., 18 pp.

CODEN: PIXXD2

DTPatent

LΑ English

FAN.	CNT	5																	
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PATENT FAMILY INFORMATION:

FAN 1995:422814

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	AU 9470461 AU 683665		19950103 19971120	AU 1994-70461 19940531	
			19960327 , DK, ES, FR,	US 1993-76735 A 19930614 WO 1994-US5946 W 19940531 EP 1994-919254 19940531 GB, GR, IE, IT, LI, LU, MC, US 1993-76735 A 19930614 WO 1994-US5946 W 19940531	NL, PT, SE
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    WO 9638460
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            LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE,
            SG, SI ·
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            , IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA
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        R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
            IE, FI
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                                          US 1995-458421 A 19950602
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    CASREACT 125:143238; MARPAT 125:143238
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IT 172945-44-7P 172945-47-0P 172945-50-5P

Page 73

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(palladium-catalyzed C-alkenylation of purine nucleosides with organotins)

RN 172945-44-7 CAPLUS

CN Adenosine, 8-phenyl-, 2',3',5'-triacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 172945-47-0 CAPLUS

CN Adenosine, 2'-deoxy-8-phenyl-, 3',5'-diacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 172945-50-5 CAPLUS

CN Guanosine, 8-phenyl-, 2',3',5'-triacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.

GI

AB Palladium-catalyzed C-alkenylation of nucleosides, e.g. I (R = H, OAc, R1 = Br), with organotin R1SnR23 [R1 = Ph, CH2:CH, CH2:C(OEt), R2 = Me, Bu] gave the corresponding I [R = H, OAc, R1 = Ph, CH2:CH, CH2:C(OEt)] in good yields.

L4 ANSWER 11 OF 19 CAPLUS COPYRIGHT 2003 ACS

AN 1995:897904 CAPLUS

DN 124:117836

TI Palladium catalysis in the synthesis of 8-position modified adenosine, 2'-deoxyadenosine and guanosine

AU Tu, Chi; Keane, Charlene; Eaton, Bruce E.

CS Medicinal Chemistry Department, Nexagen, Inc., Boulder, CO, 80301, USA

SO Nucleosides & Nucleotides (1995), 14(8), 1631-8 CODEN: NUNUD5; ISSN: 0732-8311

PB Dekker

DT Journal

LA English

OS CASREACT 124:117836

IT 172945-44-7P 172945-47-0P 172945-50-5P

RL: SPN (Synthetic preparation); PREP (Preparation)

(palladium catalysis in synthesis of 8-position modified vinyl and aryl nucleosides)

RN 172945-44-7 CAPLUS

CN Adenosine, 8-phenyl-, 2',3',5'-triacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Page 75

RN 172945-47-0 CAPLUS

CN Adenosine, 2'-deoxy-8-phenyl-, 3',5'-diacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 172945-50-5 CAPLUS

CN Guanosine, 8-phenyl-, 2',3',5'-triacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Ι

GΙ

AB Adenosine and guanosine analogs with 8-position vinyl and aryl groups, e.g. I [R = H, OAc, R1 = Ph, CH:CH2, C(OEt):CH2], were prepd. by palladium catalyzed cross-coupling of organostannanes with 8-bromopurine nucleosides. The reaction conditions and catalyst compn. were improved so

10018688.4 Page 76

that both vinyl and aryl modifications could be made by a general procedure.

- L4 ANSWER 12 OF 19 CAPLUS COPYRIGHT 2003 ACS
- AN 1995:739235 CAPLUS
- DN 123:187709
- TI 8-Substituted adenosine and theophylline-7-riboside analogs as potential partial agonists for the adenosine Al receptor
- AU Van der Wenden, Eleonora M.; Hartog-Witte, Helen R.; Roelen, Harlof C. P. F.; von Frijtag Drabbe Kuenzel, Jacobien K.; Pirovano, Irene M.; Mathot, Ron A. A.; Danhof, Meindert; Van Aerschot, Arthur; Lidaks, Margeris J.; et al
- CS Division of Medicinal Chemistry, Leiden-Amsterdam Center for Drug Research, Leiden University, P.O. Box 9502, RA Leiden, 2300, Neth.
- SO European Journal of Pharmacology, Molecular Pharmacology Section (1995), 290(3), 189-99
 - CODEN: EJPPET; ISSN: 0922-4106
- PB Elsevier
- DT Journal
- LA English
- IT 73340-78-0

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)

(structure activity of 8-substituted adenosine- and theophylline ribosides as Al and A2A agonists)

- RN 73340-78-0 CAPLUS
- CN Adenosine, 8-phenyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

AB A series of 8-substituted adenosine and theophylline-7-riboside analogs (28 and 9 compds., resp.) was tested on adenosine A1 and A2A receptors as an extensive exploration of the adenosine C8-region. Alkylamino substituents at the 8-position cause an affinity decrease for adenosine analogs, but an affinity increase for theophylline-7-riboside derivs. The affinity decrease is probably due to a direct steric hindrance between the C8-substituent and the binding site as well as to electronic effects, not to a steric influence on the ribose moiety to adopt the anti conformation. The 8-substituents increase the affinity of theophylline-7-riboside analogs probably by binding to a lipophilic binding site. The intrinsic activity was tested in vitro for some 8-substituted adenosine analogs, by detg. the GTP shift in receptor binding studies and the inhibition of adenylate cyclase in a culture of rat thyroid FRTL-5 cells, and in vivo in the rat cardiovascular system for 8-butylaminoadenosine. Thus, it was shown that 8-ethyl-, 8-butyl-, and 8-pentylamino substituted analogs of adenosine may be partial agonists in vitro, and that 8-butylaminoadenosine

10018688.4 Page 77

is a partial agonist for the rat cardiovascular Al receptor in vivo.

- L4 ANSWER 13 OF 19 CAPLUS COPYRIGHT 2003 ACS
- AN 1994:645130 CAPLUS
- DN 121:245130
- TI Selective Inhibition of Trypanosomal Glyceraldehyde-3-phosphate Dehydrogenase by Protein Structure-Based Design: Toward New Drugs for the Treatment of Sleeping Sickness
- AU Verlinde, Christophe L. M. J.; Callens, Mia; Van Calenbergh, Serge; Van Aerschot, Arthur; Herdewijn, Piet; Hannaert, Veronique; Michels, Paul A. M.; Opperdoes, Fred R.; Hol, Wim G. J.
- CS School of Medicine, University of Washington, Seattle, WA, 98195, USA
- SO Journal of Medicinal Chemistry (1994), 37(21), 3605-13 CODEN: JMCMAR; ISSN: 0022-2623
- DT Journal
- LA English

(Uses)

T7 73340-78-0P, 8-Phenyladenosine
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); SPN (Synthetic preparation); THU
(Therapeutic use); BIOL (Biological study); PREP (Preparation); USES

(protein structure-based design of selective inhibition of glyceraldehyde phosphate dehydrogenase complexes of humans and Trypanosoma brucei in treatment of sleeping sickness)

- RN 73340-78-0 CAPLUS
- CN Adenosine, 8-phenyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

AΒ Within the framework of a project aimed at rational design of drugs against diseases caused by trypanosomes and related hemoflagellate parasites, selective inhibitors of trypanosomal glycolysis were designed, synthesized, and tested. The design was based upon the crystallog. detd. structures of the NAD:glyceraldehyde-3-phosphate dehydrogenase complexes of humans and Trypanosoma brucei, the causative agent of sleeping sickness. After one design cycle, using the adenosine part of the NAD cofactor as a lead, the following encouraging results were obtained: (1) a 2-Me substitution, targeted at a small pocket near Val 36, improves inhibition of the parasite enzyme 12.5-fold; (2) an 8-(thien-2-yl) substitution, aimed at Leu 112 of the parasite enzyme, where the equiv. residue in the mammalian enzyme is Val 100, results in a 167-fold better inhibition of the trypanosomal enzyme, while the inhibition of the human enzyme is improved only 13-fold; (3) exploitation of a "selectivity cleft" created by a unique backbone conformation in the trypanosomal enzyme near the adenosine ribose yields a considerable improvement in selectivity: 2'-deoxy-2'-(3-methoxybenzamido)adenosine e inhibits the human enzyme only

Page 78

marginally but enhances inhibition of the parasite enzyme 45-fold when compared with adenosine. The designed inhibitors are not only better inhibitors of T. brucei GAPDH but also of the enzyme from Leishmania mexicana.

L4 ANSWER 14 OF 19 CAPLUS COPYRIGHT 2003 ACS

AN 1992:506100 CAPLUS

DN 117:106100

TI Substitution of p- and o-hydroxyphenyl radicals at the 8-position of purine nucleosides by reaction with mutagenic p- and o-diazoquinones

AU Kikugawa, Kiyomi; Kato, Tetsuta; Kojima, Kazuhiro

CS Tokyo Coll. Pharm., Hachioji, 192-03, Japan

SO Mutation Research (1992), 268(1), 65-75 CODEN: MUREAV; ISSN: 0027-5107

DT Journal

LA English

IT 143084-41-7

RL: BIOL (Biological study)

(as diazoquinone reaction product, mutagenicity in relation to)

RN 143084-41-7 CAPLUS

CN Guanosine, 2'-deoxy-8-(2-hydroxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

GI

$$\bigcup_{N_2}^{\circ} \bigcup_{I}^{N_2}$$

AB Incubation of 2'-deoxyadenosine (dAdo), 2'-deoxyguanosine (dGuo), adenosine, guanosine (Guo), thymidine, and deoxycytidine with p- and o-diazoquinones [pD (I) and oD (II), resp.], mutagens produced by the reaction of phenol and nitrate, at pH 7 and 37 degree. resulted in a decrease in each nucleoside depending upon the concn. of the diazoquinones. The pD-dAdo, pD-dGuo, and pD-Guo were isolated from the reaction mixts. of dAdo, dGuo, and Guo, resp., with p-diazoquinone at pH 9.5, and oD-dGuo was isolated from the mixt. of dGuo and o-diazoquinone at

10018688.4 Page 79

pH 9.5. The products were identified as 8-(p-hydroxyphenyl)- and 8-(o-hydroxyphenyl)-purine nucleosides by 1H- and 13C-NMR spectra, secondary ion mass spectrum, UV absorption spectrum, and elemental analp- And o-diazoquinones may be converted into p- and o-hydroxyphenyl radicals, resp., which in turn attack the 8 position of the purine nucleosides. The mutagenicity of these diazoquinones may be partly due to the radical reactions.

L4 ANSWER 15 OF 19 CAPLUS COPYRIGHT 2003 ACS

AN 1990:514920 CAPLUS

DN 113:114920

TI Purines. IX. Reaction of 9-phenyl-9H-purine-2-carbonitriles with Grignard reagents

AU Tanji, Kenichi; Higashino, Takeo

CS Sch. Pharm. Sci., Univ. Shizuoka, Shizuoka, 422, Japan

SO Heterocycles (1990), 30(1, Spec. Issue), 435-40 CODEN: HTCYAM; ISSN: 0385-5414

DT Journal

LA English

OS CASREACT 113:114920

IT 129006-37-7P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. and reaction of, with Grignard reagents)

RN 129006-37-7 CAPLUS

CN 9H-Purine-2-carbonitrile, 8,9-diphenyl- (9CI) (CA INDEX NAME)

IT 129006-33-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. and reaction of, with cyanide)

RN 129006-33-3 CAPLUS

CN 9H-Purine, 2-chloro-8,9-diphenyl- (9CI) (CA INDEX NAME)

IT 129006-43-5P 129006-44-6P

RL: SPN (Synthetic preparation); PREP (Preparation) (prepn. of)

RN 129006-43-5 CAPLUS

CN Methanone, (8,9-diphenyl-9H-purin-2-yl)phenyl- (9CI) (CA INDEX NAME)

RN 129006-44-6 CAPLUS

CN Methanone, (6-methyl-8,9-diphenyl-9H-purin-2-yl)phenyl- (9CI) (CA INDEX NAME)

GΙ

- AB The Pd-catalyzed cross-coupling reaction of chlorophenylpurines I (R = Cl, R1 = H, Me, R2 = H, Ph; R = H, Me, R1 = Cl, R2 = H, Ph) with KCN proceeded to give purinecarbonitriles I (R = cyano, R1 = H, Me, R2 = H, Ph; R = H, Me, R1 = cyano, R2 = H, Ph). The conversion of I (R = cyano) into I (R = Ac, COEt, Bz) was achieved by treatment with Grignard reagents.
- L4 ANSWER 16 OF 19 CAPLUS COPYRIGHT 2003 ACS
- AN 1990:458784 CAPLUS
- DN 113:58784
- TI Purine derivatives as competitive inhibitors of human erythrocyte membrane phosphatidylinositol 4-kinase
- AU Young, Rodney C.; Jones, Martin; Milliner, Kevin J.; Rana, Kishore K.; Ward, John G.
- CS Smith Kline and French Res. Ltd., Welwyn/Hertfordshire, AL6 9AR, UK
- SO Journal of Medicinal Chemistry (1990), 33(8), 2073-80 CODEN: JMCMAR; ISSN: 0022-2623
- DT Journal
- LA English
- OS CASREACT 113:58784
- IT 127820-25-1P

RL: SPN (Synthetic preparation); PREP (Preparation) (prepn. and phosphatidylinositol 4-kinase inhibition by)

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RN 127820-25-1 CAPLUS

CN 9H-Purin-6-amine, 8,9-diphenyl- (9CI) (CA INDEX NAME)

AB The possibility of deriving a potent, cell-penetrating inhibitor of human erythrocyte phosphatidylinositol 4-kinase, competitive with respect to ATP, has been investigated in a series of purine derivs. and analogs. The purine nucleus is not essential for binding to the ATP site but offers the advantage of synthetic accessibility to its derivs. The optimum substitution pattern in purine consisted of an electron-releasing substituent in the 6-position (e.g. amino, as in adenine) and a compact, lipophilic group in either the 8-position or, preferably, the 9-position, suggesting the importance of the N-1 lone pair and hydrophobic contributions of the 8- and 9-substituents to binding. The most potent inhibitor synthesized was 9-cyclohexyladenine, which has an apparent Ki value of 3.7 .mu.M.

L4 ANSWER 17 OF 19 CAPLUS COPYRIGHT 2003 ACS

AN 1982:52623 CAPLUS

DN 96:52623

TI Reactions of benzenediazonium ions with guanine and its derivatives

AU Hung, Ming Hong; Stock, Leon M.

CS Dep. Chem., Univ. Chicago, Chicago, IL, 60637, USA

SO Journal of Organic Chemistry (1982), 47(3), 448-53

CODEN: JOCEAH; ISSN: 0022-3263

DT Journal

LA English

IT 79953-03-0P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. and hydrolysis of)

RN 79953-03-0 CAPLUS

CN Guanosine, 8-phenyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

AB Guanine reacts with several benzenediazonium ions rapidly in ag. soln. at

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pH 10.5 to form 8-(arylazo) quanines in good yield. The reaction of guanine with 4-bromobenzenediazonium ion forms 8-[(4bromophenyl)azo]guanine about 50-fold more rapidly than the reaction of adenine with this ion to yield 6-[3-(4-bromophenyl)-2-triazen-1-yl]purine under these exptl. conditions. Guanosine reacts much more slowly than guanine with the benzenediazonium ions in aq. soln. at pH 8.5 or 10.5 to give 8-arylguanosines. The structures of these products were established by their spectroscopic properties and by their quant. conversion to 8-arylguanines. 5'-Guanylic acid also reacts quite slowly with the benzenediazonium ions in aq. soln. at pH 10.5. Only the compds. with strong electron-withdrawing groups yield N-2 triazenes at ambient temp. No 8-aryl or 8-arylazo compds. are formed with 5'-quanylic acid at this temp. However, 4-bromo- and 4-sulfobenzenediazonium ions react with 5'-quanylic acid at higher temps. to yield the 8-aryl-5'-guanylic acids in low yield. The structures of these products were proven by hydrolysis to 8-arylquanines. The 8-arylquanosines and the 8-aryl-5'-quanylic acids are formed via free-radical phenylation reactions. The factors governing the reactivity of the adenines and the guanines are discussed.

L4 ANSWER 18 OF 19 CAPLUS COPYRIGHT 2003 ACS

AN 1980:164214 CAPLUS

DN 92:164214

TI Modification of position 8 of purine nucleosides and of adenosine 3',5'-cyclic monophosphate. Catalytic coupling reactions of organomagnesiums with 8-bromopurine riboside and 8-bromoadenosine 3',5'-cyclic monophosphate silyl derivatives in the presence of dichlorobis(triphenylphosphine)palladium

AU Nguyen Cong-Danh; Beaucourt, Jean Pierre; Pichat, Louis

CS Servi. Mol. Marquees, CEN-Saclay, Gif-sur-Yvette, F91190, Fr.

SO Tetrahedron Letters (1979), (34), 3159-62 CODEN: TELEAY; ISSN: 0040-4039

DT Journal

LA French

IT 73340-78-0P 73340-84-8P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. and silvlation of)

RN 73340-78-0 CAPLUS

CN Adenosine, 8-phenyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 73340-84-8 CAPLUS

CN Adenosine, 8-phenyl-, cyclic 3',5'-(hydrogen phosphate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

IT 73340-93-9P 73340-94-0P

RL: SPN (Synthetic preparation); PREP (Preparation)

(prepn. of)

RN 73340-93-9 CAPLUS

CN Adenosine, 8-phenyl-N-(trimethylsilyl)-2'-O-(trimethylsilyl)-, cyclic 3',5'-(trimethylsilyl phosphate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 73340-94-0 CAPLUS

CN Adenosine, 8-phenyl-N-(trimethylsilyl)-2',3',5'-tris-O-(trimethylsilyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

GI

AB Pd catalyzed condensation of Grignard reagents with silyl derivs. of 8-bromoadenosine 3'5'-cyclic monophosphate is a convenient method for the prepn. of the corresponding 8-alkyl derivs. E.g., condensation of the purine I (R = R2 = R3 = SiMe3, R1 = Br) with CH2:CHCH2MgCl in THF, in the presence of (Ph3P)2PdCl2 gave, after hydrolysis, 35% I (R = R2 = R3 = H, R1 = CH2CH:CH2). Similar treatment of the cyclic phosphate I [R = R2 = SiMe3, R1 = Br, R32 = P(0)SiMe3] gave 30% I [R = R2 = H, R1 = CH2CH:CH2, R32 = P(0)OH]. In the latter reaction, changing the catalyst to Pd(PPh3)4 or (Ph3P)2NiCl2 had little effect on product yield.

L4 ANSWER 19 OF 19 CAPLUS COPYRIGHT 2003 ACS

AN 1972:22084 CAPLUS

DN 76:22084

TI Reactions of carcinogens with quanine nucleotides

AU Hoffmann, Hans Dieter; Mueller, W.

CS Org.-Chem. Inst., Univ. Goettingen, Goettingen, Fed. Rep. Ger.

SO Phys.-Chem. Mech. Carcinog., Proc. Int. Symp. (1969), Meeting Date 1968, 183-7. Editor(s): Bergmann, E. D. Publisher: Isr. Acad. Sci. Hum., Jerusalem, Israel.

CODEN: 23XJAP

DT Conference

LA English

IT 35058-93-6P

RN 35058-93-6 CAPLUS

CN 5'-Guanylic acid, 8-phenyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

AB Direct arylation of C-8 of guanine nucleotides was achieved by reaction with hydrocarbon radicals. X-irradn. of a DNA soln. satd. with benzo[a]pyrene yielded 8-benzo[a]pyrenylguanine. 5'-GMP and phenyldimethyltriazene gave 8-phenylguanosine 5'-phosphate. Reaction of DNA with the hydroxylamino free radical of nitroquinoline N-oxide followed by hydrolysis by DNase gave the same product as the direct reaction of the guanine nucleotide, but the quinoline-substituted guanine was not synthesized. Such modifications of DNA may hinder the binding of repressor mols.

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